

REMARKS/ARGUMENTS

Claim Rejections – 35 USC 112

Examiner has rejected Claim 28 under 35 USC 112, second paragraph. The rejection of Claim 28 is moot since Applicant has deleted Claim 28.

Claim Rejections – 35 USC 102

Examiner has rejected Claims 1 – 3, 5 – 10, 12 – 15, 20 – 25, and 27 – 30 under 35 USC 102(e). In response, Applicant has cancelled Claim 1 and amended Claim 29 so that it is now limited by

.... a **solid microactuator not interrupted by a break or opening**, said solid microactuator comprising:

- 1) an inner inactive region,
- 2) a first outer inactive region,
- 3) a second outer inactive region,
- 4) a first piezoelectric section sandwiched between said first outer inactive region and said inner inactive region,
- 5) a second piezoelectric section sandwiched between said second outer inactive region and said inner inactive region, ...

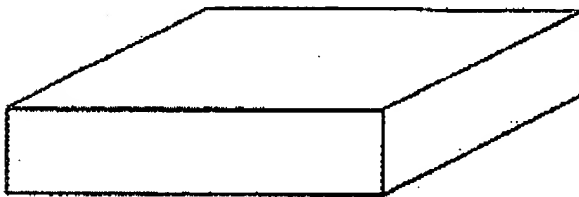
The word “solid” is a very common word and immediately understood by one having even just rudimentary knowledge of the English language. The website “www.dictionary.com” defines “solid” as, “Having no gaps or breaks”. Also, the Merriam-Webster Online Dictionary defines “solid” as, “not interrupted by a break or opening <a solid wall>”.

In rejecting cancelled Claim 28, Examiner states, “...the embodiments shown in drawings show gaps. For example, Fig. 2 shows a gap between 21 and 22, FIG. 5B shows a gap between 22 and 22, etc.” In response, Applicant submits that Applicant’s FIG. 2 shows a solid microactuator not interrupted by a break or opening. For example, between outer inactive region 21 and inner inactive region 23 is a first piezoelectric section. There is no break or opening. Between inner inactive region 23 and outer inactive region 22 there is a second piezoelectric section. There is no break or opening. Also, regarding FIG. 5B, between outer inactive regions 22 and 22, there is no gap, break

or opening. Instead, the area between regions 22 is solid, filled in by piezoelectric sections 44 and 42 and inner inactive region 23.

Rectangular Block

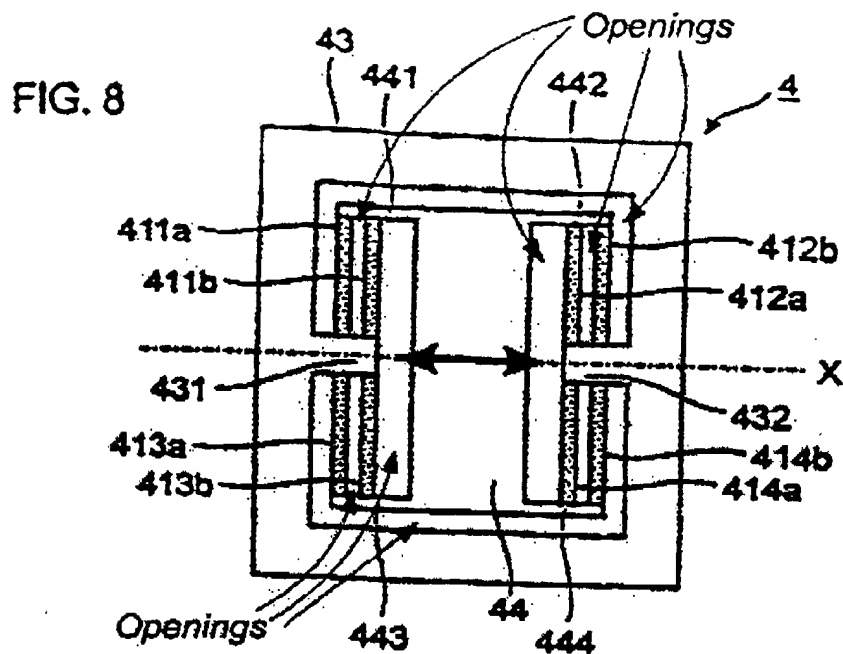
Looking at FIG. 2, microactuator 18 is clearly in the shape of a rectangular block having no gaps, breaks or openings. Rectangular blocks are common shapes seen virtually everyday by human beings. For example, a brick is commonly made as a rectangular block. Also, the drawing below shows one example of a common rectangular block. By comparing the drawing below to microactuator 18 shown in FIG. 2, it can be seen that microactuator 18 is clearly a rectangular block with no gaps, breaks or openings.



Examiner's Comments

In rejecting Applicant's claims, Examiner states that Soeno shows, "E) a rectangular block microactuator 4 (FIG. 8), in which 411a-414a and 411b-414b are connected with 431 and 432 without gap...". In response, Applicant submits that microactuator 4 is not a "solid microactuator not interrupted by break or opening" nor is microactuator 4 a rectangular block microactuator.

For example, below is a Soene's FIG. 8 with notations added by Applicant showing where there are openings in microactuator 4. Constructing microactuator 4 to include the openings is much more complicated and expensive than constructing Applicant's simple rectangular block microactuator.



Moreover, it should be noted that Soeno's microactuator is not a rectangular block. A top view of a rectangular block looks like a rectangle, not like the complicated shape shown in Soeno's FIG. 8. The simplicity of Applicant's microactuator with a solid rectangular block design provides significant savings in the cost of manufacture.

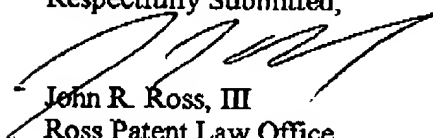
Allowable Subject Matter

Examiner has stated that Claim 26 is allowable. Claim 27 should also be allowable because it is a means-plus-function claim similar to Claim 26. If Examiner feels Claim 27 should not be allowable, it is requested that Examiner please specifically state the reason.

CONCLUSION

Thus, for all the reasons given above, this application, as the claims are presently limited, define a novel, patentable, and truly valuable invention. Hence allowance of all of the outstanding claims of this application is respectfully submitted to be proper and is respectfully solicited.

Respectfully Submitted,



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